



TOYOTA Production Systems Laboratory

Industrial and Systems
Engineering

Spring 2012.

www.rit.edu/ToyotaLab

Foundation Grant Work Progresses

This 8th edition of our newsletter highlights activities from the winter and spring quarters of 2011-12. This includes work on 2 grants, numerous visitors, and other activities.

Toyota USA Foundation Grant

We have been working on several aspects of the grant. The intent of this grant is to create 27 in-lab and on-line modules—3 for each of Advanced Manufacturing, Distribution, and Health Care, and each of those at 3 grade levels (5-6, 7-9, and 10-12). We “alpha tested” the first 6 modules at the Imagine RIT Festival. We will be beta-testing those modules in July during our annual summer camps for girls. We have brainstormed activities for the 9 Distribution modules and will be starting to design those in July. Benchmarking web sites has given us ideas for the design of our web site that will be the vehicle for delivering the on-line modules.



National Science Foundation Grant

As part of the Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) initiative, we received a grant aimed at improving problem-solving skills in students who are deaf or hard of hearing (DHH). We proposed an innovative approach that uses the TPS Lab to provide DHH students an experiential environ-

ment for exploring engineering-related problem-solving scenarios. The proposed approach also uses the A3 report as a foundation for teaching students problem-solving skills. The NSF grant is a three-year, \$198,000 award.

Staffing

The current staff includes: Abbey Donner, Srinath Sriram, Tim Schmoke, Sourabh Jain, Kaitlin Peranski, and Arlene Meyer.

Many Visitors “Go and see” in the TPS Lab

RIT held its 5th annual “Imagine RIT” festival on Saturday, May 5. Around 32,000 people visited the RIT campus, and of that large group, 1260 visited the TPS Lab. We expanded the “lego challenge” car assembly game this year by adding a 3rd assembly line. To staff this activity for 7 hours requires close to 20 people,

and fortunately a number of our ISE students volunteered to help. 253 “kids” of all ages built cars.

Other Visitors

In April, 31 IE students from universities across the northeast participated in lab exercises as a part of the Institute of Industrial Engineers (IIE)

regional conference hosted by RIT. Also, students from the Rochester city schools program “Mind, Body, and Soul” assembled parts on one of our assembly lines and then did kaizen. In May, a group of 15 Rochester city 6th graders participated in a bottle and cardboard recycling exercise using the conveyors we added to the

lab last year. In addition, key leaders and engineers from Toyota, Raymond, Barilla, Delphi, Simpler, Thermo-Fisher, Meritor, the Girl Scouts, and other organizations, as well as a few university professors and program leaders, visited the lab.

NEWS

- WORK CONTINUES ON THE TOYOTA FOUNDATION USA GRANT.
- A NEW 3-YEAR NATIONAL SCIENCE FOUNDATION GRANT WAS AWARDED TO THE LAB.
- WE RAN 3 LEGO CAR ASSEMBLY LINES AT THE RIT IMAGINE FESTIVAL TO MEET INCREASED DEMAND
- KEY LEADERS FROM 7 COMPANIES AND 2 UNIVERSITIES VISITED THE LAB

QUICK FACTS

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| NUMBER OF STUDENTS DURING THE PAST ACADEMIC YEAR THAT PARTICIPATED IN LAB EXERCISES | 223 |
| NUMBER OF VISITORS TO THE LAB DURING IMAGINE RIT FESTIVAL | 1260 |
| NUMBER OF OTHER HIGH SCHOOL AND COLLEGE STUDENTS WHO PARTICIPATED IN LAB EXERCISES | 88 |
| NUMBER OF OTHER VISITORS TO THE LAB DURING THE PAST ACADEMIC YEAR | 65 |